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METHODS OF DETERMINATION OF THE LEVEL OF FORMATION OF CRITICAL THINKING IN KIDS OF ELEMENTARY SCHOOL

Abstract. The modern school is designed to develop the habit of each kid to actively participate in solving important issues of the life of the team, the ability to form, express and defend their opinion, respect the opinion of other people. It is impossible to prepare young people for the conditions of modern life by way of thoughtless and direct assimilation of established truths. To educate communication and collaboration skills, to teach are kids to study, the teacher has to radically change the content of his activities. Now the main task is not to "convey", "explain", "show" to scholars, but to organize a joint search for the solution of the problem that faced them. New learning conditions require the ability to listen to everyone on each question, stand up for the position of each kid to understand the logic of his reasoning and find a way out of a constantly changing educational situation, analyze responses, suggestions of children, and quietly guide them to solving problems. Therefore, the improvement of the educational process requires from the teacher not passive assimilation of knowledge by kids, but active formation of their thinking, in particular critical.

Keywords: critical thinking; elementary school; kids; primary school; level of formation of critical thinking

Introduction. Are people not only perceives the world around him, but wants to understand him. To understand means to penetrate into the essence of objects and phenomena, to know the most important thing that is essential in them. Understanding is provided by the most complex mental process - thinking.

Thinking gives the answer to such questions that cannot be resolved by direct, sensual reflection. Thanks to thinking, a person is correctly oriented in the surrounding world, using previously obtained generalizations in a new, concrete environment. Human activity is rational due to the knowledge of laws, interrelations of objective reality.

Thinking is a function of the brain, the result of its analytical and synthetic activity. It is provided by the operation of both signaling systems with the leading role of the second signaling system. When solving mental problems in the cerebral cortex, a process of transformation of the systems of temporary neural connections takes place. Finding a new thought physiologically means closing the neural connections in a new combination.

Our knowledge of the surrounding reality begins with sensations and perceptions and moves on to thinking. The function of thinking - expanding the boundaries of knowledge by going beyond the limits of sensory perception. Thinking allows using inference to reveal that which is not given directly in perception.

The task of thinking is the disclosure of relations between objects, the identification of connections and their separation from random coincidences. Thinking operates with concepts and assumes the functions of generalization and planning.

Critical thinking is the use of cognitive techniques or strategies that increase the likelihood of obtaining the desired end result. This definition characterizes thinking as something different in controllability, validity, and purposefulness — the type of thinking that is resorted to when solving problems, formulating conclusions, probabilistic assessment and decision-making. In this case, the thinker uses skills that are justified and effective for the specific situation and type of the problem being solved.

Critical thinking helps a person to determine his own priorities in his personal and professional life. Scientists - teachers distinguish the following signs of critical thinking: productive thinking (forms a positive experience of everything that happens with a person);

- thinking is independent and responsible (the work at the first stage is individual, the kid takes responsibility for his learning outcome);
- thinking reasoned (thoughtful decisions are confirmed by convincing arguments);
- individual thinking (forms the personal culture of working with information);
- social thinking (work is carried out in pairs and groups, interaction in the form of discussion).

In order for a kid to use his critical thinking, it is important for him to develop a number of qualities, among which D. Halpern highlights:

1. Readiness for planning. Thoughts often arise chaotically. It is important to organize them, build a sequence of presentation. Orderliness of thought is a sign of confidence.
2. Flexibility. If a kid is not ready to accept the ideas of others, he can never become a generator of his own ideas and thoughts. Flexibility allows you to wait with the judgment, while the kid does not have a variety of information.
3. Perseverance. Often, when faced with a difficult task, we postpone its decision for later. Developing perseverance in the tension of the mind, the kid will certainly achieve much better results in training.
4. Willingness to correct their mistakes. A critical person will not justify his wrong decisions, but draw conclusions, take advantage of an error to continue his studies.
5. Awareness. This is a very important quality, which implies the ability to observe oneself in the process of mental activity, to track the course of reasoning.
6. The search for compromise solutions. It is important that decisions are taken by other people, otherwise they will remain at the level of statements. [1],[3]

Analysis of the literature shows that there are special methods for the development of critical thinking.

The study of research results (L. Vygotsky, J. Steele, K. Meridit, Ch. Temple, J. Piaget, and others) and our practical experience shows that in education the structure of the technology for developing critical thinking is slender and logical, since its stages correspond to the natural stages of the cognitive activity of the individual.

First of all, scientists have come to the conclusion that the basis of the technology for the development of critical thinking is the structure of a lesson consisting of three stages: challenge, reflection, and reflection. Each stage has its own goals and objectives, methodological techniques and techniques aimed at performing the tasks of the stage. (Table 1).

Table 1.
Tasks of the stage

Technological stages	Activity teachers	Activity of kids	Possible techniques and methods
I stage (phase) Call - actualization of existing knowledge; - Awakening interest in obtaining new information; - setting the kid's own learning goals.	It aims to challenge kids with already existing knowledge on the subject under study, to intensify their activities, to motivate further work, to give them the opportunity to purposefully think, express their thoughts in their own words, to structure the subsequent process of studying the material.	Kid "remembers" what he knows on the research question (making assumptions), systematizes information to learn new material, asking questions that want answers.	Making a list of "known information": story-assumption by keywords; systematization of the material (graphic): clusters, tables; correct and incorrect statements; entangled logical chains; brain attack; problematic issues, etc. Information obtained at the call stage is heard, recorded, discussed. Work is conducted

			individually, in pairs or groups.
Stage II Understanding the content - receiving new information; -adjustment kid learning goals.	Aimed at preserving interest in the topic while working directly with the new information, gradual advancement from the knowledge of the “old” to the “new”	A children reads (listens) to the text, using the active reading methods proposed by the teacher, makes notes in the margins or keeps notes as they reflect on new information.	Active reading methods. Search of answers to the first part of the lesson questions.
Stage III. Reflection -thinking, the birth of a new knowledge; -setting kid new learning goals.	The teacher should: return the kids to the original assumptions; make changes; give creative, research or practical tasks based on the information studied	Kids relate the "new" information to the "old", using the knowledge gained at the stage of understanding the content.	Filling clusters, tables. The establishment of a causal relationship between the blocks of information. Return to keywords, true and false statements. Answers to the questions. Organization of oral and written round tables. Organization of various types of discussions. Writing creative works. Studies on specific issues of the topic, etc. At the stage of reflection, analysis, creative processing, and interpretation of the information studied are carried out. Work is conducted individually, in pairs or in groups.

By combining them, the teacher can plan lessons in accordance with the level of maturity of kids, the objectives of the lesson and the amount of educational material. The possibility of combining important importance for the teacher himself - he can feel freely while working on this technology, adapting it in accordance with his preferences, goals and objectives.

In order for the development process of critical thinking of younger schoolchildren to be carried out successfully, knowledge of the developmental levels of critical thinking of kids is necessary, since the choice of types of exercises and tasks must depend on the level at which the kid is located.

Based on the understanding of the term "critical thinking", which denotes one of the types of human intellectual activity, which is characterized by a high level of perception, understanding, and objectivity of the information field surrounding it, we identified the following criteria for identifying the levels of critical thinking development (Table 2).

Table 2.
Levels of critical thinking development

Criteria	Indicators	Measurement methods
Ability to compare	Predominance of comparative analysis skills. Ability to evaluate.	Work with sample
Ability to logical judgment	Awareness of mental activity. The ability to correct mistakes.	Work with fiction
Ability to predict	Clarity of presentation. The ability to argue. Readiness for planning.	Work with pictures

Based on the analysis of the methods studied by us, the levels, or components, of the reading competence of younger schoolchildren were identified: cognitive, activity, motivational.

Among them, the identification of the following: willingness to correct mistakes, awareness, flexibility critical thinking. Let's take a closer look at each of these components.

1. Willingness to correct mistakes implies the ability to compare their actions with the aim, to find and correct mistakes.
2. Awareness. This component assumes the ability to establish logical connections and relationships between concepts.
3. Flexibility includes the formation of the following skills: the ability to read information given implicitly; skill self-guess what information is needed to solve learning task, the ability to extract information from texts, tables, charts, illustrations.

The choice of specific tasks to determine the level of development individual qualities carried out in accordance with a number of requirements:

1. Assignments must be age appropriate kids.
2. The complex of diagnostic tasks must demonstrate level of development of the three qualities of critical thinking ("awareness", "willingness to correct mistakes", "flexibility").

The level of formation of the component "readiness to correct mistakes" investigated using ready-made assignments in which children found mistakes made. An example would be any essay that the teacher will read in the lesson and the children will have to analyze the information received, and answer the task questions. This may be to build a sequence of events in the text, clarify the event or the absence of any character.

Determining the levels of development of the ability to find and correct errors, we proceeded from the following messages:

- At a high level there are kids who have correctly found and corrected errors in all tasks. They got a high level.
- At the secondary level - those children who correctly completed one or two tasks. For such an answer, the kid could get an average level.
- Pupils with a low level of development of the ability to find and correct errors made inaccuracies in the task, or they were not fulfilled. For this answer, the kid received a low level.

The second component, which is noted by researchers, is awareness critical thinking. When considering the current level of this component we investigated the level of development of the ability to install logical connections and relationships between concepts.

To identify the awareness of critical thinking, we used the method of "simple analogies", where the kid for prepositional variations should find the most appropriate option. [2], [4]

Determining the levels of awareness of critical thinking, we proceeded of the following messages:

- High level kids components correctly establish relationships between concepts (specific, logical, categorical), fix the sequence and stability selection of essential features to establish analogies.
- At the secondary level, those children who make connections between concepts, but may make mistakes.
- The low level of development is reflected in the minimal variations of the answer, many errors are allowed.

High level is characterized by the ability to accurately enough identify information given in an explicit and implicit form. Kids showing a high level of development of flexibility of thinking, right select material to write a recommendation to a friend, do not apply only to the text, but also to the literature in order to determine the essence

concepts, note the most important points. Schoolchildren with ease extract information from the illustration, relate it to the work. At according to the development of these skills, kids get high scores.

At an average level of development of flexibility of thinking are kids the responses of which reflect the selection of material, allowing inaccuracies in revealing the facts. At this level, kids when writing recommendations does not define its main components, give a superficial characteristic. The ability to extract information from the illustration is developed in to a greater extent, children quite accurately determine the main essence illustration. In accordance with the development of these skills, kids receive middle level.

The low level of development of flexibility of thinking is characteristic of those kids who do not correctly identify information stated explicitly. They hardly reproduce the actual essence plot, not reflecting the information given in an implicit form. At writing recommendations schoolchildren rely only on their own emotional perception of the work, do not indicate the fact of why just need to read this book. When interpreting illustrations arise minor difficulties. This level is assigned low points.

Conclusion. With the introduction of new standards, requirements are raised for the level of development of kids' thinking, because it is thinking as the highest form of human cognitive activity that allows to reflect the surrounding reality, in a generalized, indirect way, and to establish connections and relationships between objects and phenomena. The highest level of intellectual abilities of a person reflect such types of thinking as: logical, creative, which is why the federal state educational standard of primary general education is focused on the development of critical thinking of kids. The specifics of the educational technology for the development of critical thinking is as follows: first, the learning process is based on scientifically grounded patterns of interaction between personality and information. Secondly, the phases of this technology (challenge, reflection, reflection) are instrumented in such a way that the teacher can be as flexible and authentic as possible to every learning situation at any given time: it's about a variety of visual forms and strategies for working with text, organizing discussions and project implementation process. Third, technology strategies allow all training to be conducted on the basis of principles of cooperation, joint planning and meaningfulness.

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МЕТОДИ ВИЗНАЧЕННЯ РІВНЯ СФОРМОВАНОСТІ КРИТИЧНОГО МИСЛЕННЯ ДІТЕЙ МОЛОДШОЇ ШКОЛИ

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Анотація. Сучасна школа повинна розвивати мислення кожної дитини, активно брати участь у вирішенні важливих питань, вміння формувати, виражати та захищати свою думку, поважати думку інших людей. Неможливо підготувати дітей до умов сучасного життя шляхом бездумної та безпосередньої асиміляції встановлених істин. Щоб навчити навичкам комунікації та співпраці, навчити дітей навчатися, вчитель повинен радикально змінити зміст своєї діяльності. Тепер основним завданням є не "передати", "пояснити", "показати" учням, а організувати спільні пошуки вирішення проблеми, з якою стикаються з ними. Нові умови навчання вимагають здатності слухати кожного на кожному питанні, вставати на позицію кожної дитини, щоб зрозуміти логіку міркування та знайти вихід з постійно мінливої освітньої ситуації, аналізувати відповіді, пропозиції дітей і направляти їх на вирішення проблем. Тому вдосконалення навчального процесу вимагає від вчителя не пасивної асиміляції знань дітьми, а активним формуванням їхнього мислення, зокрема критичного.

Ключові слова: критичне мислення; початкова школа; діти; молодша школа; рівень формування критичного мислення